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|---|---|
| DHARIA, PRABODH M | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/074,756 | FUJISHIRO ET AL. | |
| | Examiner | Art Unit | |
| | Prabodh M Dharia | 2673 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *01 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☒ Claim(s) *29-31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. **Status:** Receipt is acknowledged of papers submitted on June 1, 2004 under amendments, which have been placed of record in the file. Claims 1-31 are pending in this action.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho et al. (6,674,250 B2) in view of Nakada et al. (6,657,396 B2).

Regarding Claim 1, Cho et al. teaches a fluorescent lamp (Col. 7, Line 45) comprising: a first substrate (Col. 5, Line 17); a second substrate (Col. 5, Line 20) which is arranged so as to face said first substrate (Col. 5, Lines 22,23); a discharge gas (5, Line 34), which is sealed between said first substrate and said second substrate (Col. 5, Line 34); and a plurality of discharge electrodes which are arranged an said first substrate and/or said second substrate (Col. 5, Lines 27-29), wherein, said fluorescent lamp emits light by causing electric discharge (Col. 10, Lines 60-62, Lines 66,67, Col. 11, Lines 4-8) in different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

However, Cho et al. fails to teach electrodes having discharge projection.

However, Naka ad et al. teaches electrodes having discharge projection (Col. 2, lines 33-42, Col. 8, Lines 40-67).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nakada et al. teaching in Cho et al. teaching to be able to use the driving method of discharge cell of a display to drive a fluorescent lamp to uniformly backlight a display.

Regarding Claim 2, Cho et al. teaches driving circuit which drives said fluorescent lamp by applying drive voltages to said discharge electrodes, of said fluorescent lamp (Col. 6, Lines 14-34).

Regarding Claim 3, Cho et al. teaches the plurality of discharge electrodes include group of first discharge electrodes and a group of second discharge electrodes; and said driving circuit repeats a first step and a second step, the first step causing electric discharge in first discharge areas between said first discharge electrodes and Said second discharge electrodes by applying a voltage having a negative polarity to said first discharge electrodes and applying a voltage having a positive polarity to said second discharge electrodes, and the second step causing electric discharge in second discharge areas which are different from said first discharge areas at least partially and which are between said first discharge electrodes and said second discharge electrodes by applying a voltage having a positive polarity to said first discharge electrode and applying a voltage having a negative polarity to said second discharge electrode (Col. 5, Lines 17-43, Col. 6, Lines 3-33).

Regarding Claim 4, Cho et al. teaches driving circuit which drives said fluorescent lamp by applying drive voltages to said discharge electrodes, of said fluorescent lamp (Col. 6, Lines 14-34).

Nakada et al. teaches the plurality of discharge electrodes include a group of first discharge electrodes and a group of second discharge electrodes, and said first discharge electrodes and said second discharge electrodes respectively have projections, and said projections of said first discharge electrodes and said projection, of said second discharge electrodes are arranged so as not to face said projections of the other group of discharge electrodes (Col. 8, Lines 42-67, Col. 9, Lines 14-28, Col. 10, Lines 37-58).

Regarding Claim 5, Nakada et al. teaches the driving circuit applies drive voltages having polarities which are changed oppositely from each other to said first discharge electrodes and said second discharge electrodes Col. 30, Line 64 to Col. 35, Line 10, Col.31, Lines 36-43).

Regarding Claim 6, Nakada et al. teaches both of said first discharge electrode and said second discharge electrodes are arranged on said first substrate or said first discharge electrode are arranged on said first substrate and said second discharge electrodes are arranged on said second substrate (Col. 1, Lines 27-35, Col. 12, Lines 21-35, Col. 1, Lines 58-67).

Regarding Claim 7, Cho et al. teaches a case where a voltage having a negative polarity is applied to said first discharge electrodes and a voltage having a positive polarity is applied to said second discharge electrodes, electric discharge is caused in first discharge areas which are between said projection, of said first discharge electrodes and said second discharge electrodes,

and in a case where a voltage having a positive polarity is applied to said first discharge electrodes and a voltage having a negative polarity is applied to said second discharge; electrodes, electric discharge is caused in second discharge areas which are different from said first discharge areas at least partially arid which are between said projections of said second discharge electrodes and said first discharge electrodes (Col. 5, Lines 17-43, Col. 6, Lines 3-33).

Nakada et al. teaches the driving circuit applies drive voltages having polarities which are changed oppositely from each other to said first discharge electrodes and said second discharge electrodes Col. 30, Line 64 to Col. 35, Line 10, Col.31, Lines 36-43) and both of said first discharge electrode and said second discharge electrodes are arranged on said first substrate or said first discharge electrode are arranged on said first substrate and said second discharge electrodes are arranged on said second substrate (Col. 1, Lines 27-35, Col. 12, Lines 21-35).

Regarding Claim 8, Cho et al. teaches said plurality of discharge electrodes include a group of first discharge electrodes, a group of second discharge electrodes, and a group of third discharge electrodes; and said driving circuit repeats a first discharge step and a second discharge step, the first discharge step causing electric discharge are first discharge areas between said first discharge electrodes and said second discharge electrodes by applying a drive voltage of a positive potential to one of the groups of said first discharge electrodes and second discharge electrodes and applying a drive voltage of a negative potential to the other of the groups of said first discharge electrodes and second discharge electrodes, and the second discharge step causing electric discharge in second discharge areas which are different from said first discharge areas at least partially and which are between said first discharge electrodes and said third discharge

electrodes by applying a drive voltage of a positive potential to one of the groups of said first discharge electrodes and third discharge electrodes and applying a drive voltage of a negative potential to the other of the groups of said first discharge electrodes and third discharge electrodes (Col. 5, Lines 17-43, Col. 6, Lines 3-33).

Nakada et al. teaches the driving circuit applies drive voltages having polarities which are changed oppositely from each other to said first discharge electrodes and said second discharge electrodes (Col. 30, Line 64 to Col. 35, Line 10, Col.31, Lines 36-43) and both of said first discharge electrode and said second discharge electrodes are arranged on said first substrate or said first discharge electrode are arranged on said first substrate and said second discharge electrodes are arranged on said second substrate (Col. 1, Lines 27-35, Col. 12, Lines 21-35).

Regarding Claim 9, Nakada et al. teaches the plurality of discharge electrodes include a group of first discharge electrodes, a group of second discharge electrodes, and a group of third discharge electrodes: said first discharge electrodes and said second discharge electrodes are arranged on said first substrate, and said third discharge electrodes are arranged on said second substrate; and the group of said second discharge; electrodes and the group of said third discharge electrodes respectively have projections which are arranged so as not to overlap with said projections of the other group (Col. 1, Line 58 to Col. 2, Line 1, Col. 2, Line 7-18).

Regarding Claim 10, Nakada et al. teaches said third discharge electrodes are arranged on said second substrate so as to almost face said second discharge electrodes(Col. 2, Lines 7-18, Col. 10, Lines 38-40, Col. 9, Line 14, 20).

Regarding Claim 11, Nakada et al. teaches said driving circuit applies a drive voltage of a negative potential to said second discharge electrodes and said third discharge electrodes alternately, and while applying a drive voltage of a negative potential to said second discharge electrodes or said third discharge electrodes, applies a drive voltage of a positive potential to said first discharge electrodes (Col. 2, Lines 7-18, Col. 10, Lines 38-40, Col. 9, Line 14, 20, Col. 31, Lines 5-12, Lines 36-43).

Regarding Claim 12, Cho et al. teaches a liquid crystal display device comprising the fluorescent lamp unit according to claim 2 as a back light (Col. 1, Lines 33-37).

Regarding Claim 13, Cho et al. teaches the fluorescent lamp emits light by causing electric discharge in first discharge areas between said first discharge electrodes and said second discharge electrodes and in second discharge areas which are different from said first discharge areas at least partially and which are between said first discharge electrodes (Col. 5, lines 17-35, Col. 6, Lines 13-33) and Nakada et al. teaches third discharge electrodes selectively in accordance with polarities of voltages applied to said plurality of discharge electrodes (Col. 2, Lines 7-18, Col. 10, Lines 38-40, Col. 9, Line 14, 20, Col. 31, Lines 5-12, Lines 36-43).

Regarding Claim 14, Cho et al. teaches the driving circuit applies to said plurality of discharge electrodes, drive voltages for turning on both of said first and second discharge areas when light intensity of said back light is at a maximum level and drive voltages for turning off

one of said first and second discharge areas when light intensity of said back light is at a minimum level (Col. 3, Lines 48-53).

Regarding Claim 15, Cho et al. teaches the driving circuit applies to said plurality of discharge electrodes, drive voltages for controlling said first and second discharge areas to emit light during 50% of a predetermined period, when light intensity of said back light is at a maximum level (Col. 5, Lines 31-35, Col. 2, Line 67 to Col. 3, line 11).

Regarding Claim 16, Cho et al. teaches said driving circuit applies to said plurality of discharge electrodes, drive voltages for turning on one of said first and second discharge areas and also for controlling the discharge areas which are turned on to emit light during 10% of a predetermined period, when light intensity of said back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11).

Regarding Claim 17, Cho et al. teaches the driving circuit controls one of said first and second discharge areas to emit light by causing electric discharge during 20% of a predetermined period when light intensity of said, back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11).

Regarding Claim 18, Cho et al. teaches the driving circuit controls both of said first and Second discharge areas to emit light by causing electric discharge during 100% of a

predetermined period, when light intensity of said back light is at a maximum level (Col. 2, Line 67 to Col. 3, line 11).

Regarding Claim 19, Cho et al. teaches a reflection film is adhered to said first substrate (Col. 9, Lines 22-27).

Regarding Claim 20, Nakada et al. teaches the second or third discharge electrodes are made of a transparent conductive material in a case where they arc arranged on said second substrate (Col. 1, Lines 58-62).

Regarding Claim 21, Cho et al. teaches a method of emitting light from a lamp (back light) (Col. 1, Lines 17-22) in which a discharge gas is sealed (Col. 5, Lines 17-35), and first and second discharge electrodes are formed (Col. 5, Lines 17-35) and different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Cho et al. fails to teach method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes in accordance with discharge projection of said first discharge electrodes by applying a voltage having a negative polarity to the first discharge electrodes and a voltage having a positive polarity to the second discharge electrodes, and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor; causing electric discharge in second discharge areas which are different from the first discharge areas at least partially and which are between the first and second discharge electrodes in accordance with discharge projection of said second discharge electrodes by applying a

voltage having a positive polarity to the first discharge electrodes and a voltage having a negative polarity to the second discharge electrodes, and converting ultraviolet rays caused by the electric discharge into visible; light through the phosphor and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in. The second discharge areas to be repeated.

Nakada et al. teaches method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a voltage having a negative polarity to the first discharge electrodes and a voltage having a positive polarity to the second discharge electrodes (Col. 31, lines 5-8), and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor (Col. 30, Line 65 to Col. 31, Line 5); causing electric discharge in second discharge areas which are different from the first discharge areas at least partially (Col. 2, Lines 33-47, Col. 30, Lines 49-64) and which are between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said second discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a voltage having a positive polarity to the first discharge electrodes and a voltage having a negative polarity to the second discharge electrodes, (Col. 31, Lines 5-12) and converting ultraviolet rays caused by the electric discharge into visible; light through the phosphor (Col. 30, Line 65 to Col. 31, Line 5); and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in. The second discharge areas to be repeated (Col. 30, Lines 49-64).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nakada et al. teaching in Cho et al. teaching to be able to use the driving method of discharge cell of a display to drive a fluorescent lamp to uniformly backlight a display.

Regarding Claim 22, Cho et al. teaches a method of emitting light from a lamp (back light) (Col. 1, Lines 17-22) in which a discharge gas is sealed (Col. 5, Lines 17-35), and first and second discharge electrodes are formed (Col. 5, Lines 17-35) and different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Cho et al. fails to teach first discharge electrodes, second discharge electrodes, and third discharge electrodes are formed said method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes by applying a drive voltage of a positive potential to one of the first and second discharge electrodes and a drive voltage of a negative potential to the other or the first and second discharge electrodes, and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor, causing electric discharge in second discharge areas which are different from, the first discharge areas at least partially and which are between the first and third discharge electrodes by applying a drive voltage of a positive potential to one of the first and third discharge electrodes and a drive voltage of a negative potential to the other of the first and third discharge electrodes and converting ultraviolet rays caused by the electric discharge into visible light via the phosphor; and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in the second discharge areas to be repeated.

Nakada et al. teaches first discharge electrodes, second discharge electrodes, and third discharge electrodes are formed (Col. 1, Line 58 to Col. 2, Line 18) said method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a drive voltage of a positive potential to one of the first and second discharge electrodes and a drive voltage of a negative potential to the other or the first and second discharge electrodes, (Col. 31, Lines 5-12) and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor (Col. 30, Line 65 to Col. 31, Line 5), causing electric discharge in second discharge areas which ate different from, the first discharge areas at least partially (Col. 2, Lines 33-47, Col. 30, Lines 49-64) and which are between the first and third discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a drive voltage of a positive potential to one of the first and third discharge electrodes (Col. 31, Lines 21-36) and a drive voltage of a negative potential to the other of the first and third discharge electrodes (Col. 31, Lines 36-41) and converting ultraviolet rays caused by the electric discharge into visible light via the phosphor (Col. 31, lines 41-48); and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in the second discharge areas to be repeated (Col. 31, Lines 24-30).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nakada et al. teaching in Cho et al. teaching to be able to use the driving method of discharge cell of a display to drive a fluorescent lamp to uniformly backlight a display.

Regarding Claim 23, Cho et al. teaches the controlling, it is controlled that drive voltages for turning on both of the first and second discharge areas are applied to the first and second discharge electrodes when light emission intensity is at a maximum level, and that drive voltages for turning off one of the first and second discharge areas are applied to the first and second discharge electrodes when light emission intensity is at a minimum level (Col. 2, Line 67 to Col. 3, line 16, Col. 5, Line 31-35, Col. 6, line 13-33).

Regarding Claim 24, Cho et al. teaches the controlling, it is controlled that drive voltages for turning on both of the first and second discharge areas are applied to the first to third discharge electrodes when light emission intensity is at a maximum level and that drive voltages for tuning off one of the first and second discharge areas are applied to the first to third discharge electrodes when light emission intensity is at a minimum level (Col. 2, Line 67 to Col. 3, line 16, Col. 5, Line 31-35, Col. 6, line 13-33).

Regarding Claim 25, Cho et al. teaches the controlling, it is controlled that drive voltages for turning on one of the first and second discharge areas and for controlling the discharge areas which are horned on to emit light during 10% of a predetermined period are applied to the first and second discharge electrodes when light intensity of the back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11, Col. 6, Lines 13-33, Col. 5, Lines 31-35,).

Regarding Claim 26, Cho et al. teaches it is controlled that drive voltages for turning on one of the first and second discharge areas and for controlling the discharge areas which are

turned on to emit light during 10% of a predetermined period are applied to the first to third discharge electrodes when light intensity of the back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11, Col. 6, Lines 13-33).

Regarding Claim 27, Cho et al. teaches one of the first and second discharge areas are controlled to emit light by causing electric discharge during 20% of a predetermined period when light intensity of the back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11, Col. 6, Lines 13-33).

Regarding Claim 28, Cho et al. teaches one of the first and second discharge areas are controlled to emit light by causing electric discharge during 20% of a predetermined period when light intensity of the back light is at a minimum level (Col. 2, Line 67 to Col. 3, line 11, Col. 6, Lines 13-33).

***Allowable Subject Matter***

4. Claims 29, 30, 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

a method of emitting light from a lamp in which a discharge gas is sealed, and first and second discharge electrodes are formed and different areas alternated in accordance with voltages applied to said plurality of discharge electrodes; method comprising: causing **electric**

**discharge in first discharge areas between the first and second discharge electrodes in accordance with discharge projection of said first discharge electrodes by applying a voltage having a negative polarity to the first discharge electrodes and a voltage having a positive polarity to the second discharge electrodes,** and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor; **causing electric discharge in second discharge areas which are different from the first discharge areas at least partially and which are between the first and second discharge electrodes in accordance with discharge projection of said second discharge electrodes by applying a voltage having a positive polarity to the first discharge electrodes and a voltage having a negative polarity to the second discharge electrodes,** and converting ultraviolet rays caused by the electric discharge into visible; light through the phosphor and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in. The second discharge areas to be repeated and **discharge projection have a shape selected from at least one of: a semicircular shape, a semicircumferential shape, a circumferential shape, a double semi-circumferential shape and an integrated shape of one or more linear projections.**

The cited references of 892's fail to anticipate or render obviousness individually as well as in combination underlined above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

Applicant's arguments filed 07-14-2004 have been fully considered but they are not persuasive.

Applicant argues cited references fails to teach a fluorescent lamp comprising: a first substrate; a second substrate which is arranged so as to face said first substrate; a discharge gas, which is sealed between said first substrate and said second substrate; and a plurality of discharge electrodes having discharge projection; which are arranged an said first substrate and/or said second substrate, wherein, said fluorescent lamp emits light by causing electric discharge in different areas alternated in accordance with voltages applied to said plurality of discharge electrodes.

Examiner disagrees as for Claim 1 Cho et al. teaches a fluorescent lamp (Col. 7, Line 45) comprising: a first substrate (Col. 5, Line 17); a second substrate (Col. 5, Line 20) which is arranged so as to face said first substrate (Col. 5, Lines 22,23); a discharge gas (5, Line 34), which is sealed between said first substrate and said second substrate (Col. 5, Line 34); and a plurality of discharge electrodes which are arranged an said first substrate and/or said second substrate (Col. 5, Lines 27-29), wherein, said fluorescent lamp emits light by causing electric discharge (Col. 10, Lines 60-62, Lines 66,67, Col. 11, Lines 4-8) in different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Naka ad et al. teaches electrodes having discharge projection (Col. 2, lines 33-42, Col. 8, Lines 40-67). The combination teaches applicant's invention and they do obviate.

Regarding Claim 21, Cho et al. teaches a method of emitting light from a lamp (back light) (Col. 1, Lines 17-22) in which a discharge gas is sealed (Col. 5, Lines 17-35), and first and second

discharge electrodes are formed (Col. 5, Lines 17-35) and different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34). Cho et al. teaches a fluorescent lamp (Col. 7, Line 45) comprising: a first substrate (Col. 5, Line 17); a second substrate (Col. 5, Line 20) which is arranged so as to face said first substrate (Col. 5, Lines 22,23); a discharge gas (5, Line 34), which is sealed between said first substrate and said second substrate (Col. 5, Line 34); and a plurality of discharge electrodes which are arranged an said first substrate and/or said second substrate (Col. 5, Lines 27-29), wherein, said fluorescent lamp emits light by causing electric discharge (Col. 10, Lines 60-62, Lines 66,67, Col. 11, Lines 4-8) in different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Claim 21, Cho et al. teaches a fluorescent lamp (Col. 7, Line 45) comprising: a first substrate (Col. 5, Line 17); a second substrate (Col. 5, Line 20) which is arranged so as to face said first substrate (Col. 5, Lines 22,23); a discharge gas (5, Line 34), which is sealed between said first substrate and said second substrate (Col. 5, Line 34); and a plurality of discharge electrodes which are arranged an said first substrate and/or said second substrate (Col. 5, Lines 27-29), wherein, said fluorescent lamp emits light by causing electric discharge (Col. 10, Lines 60-62, Lines 66,67, Col. 11, Lines 4-8) in different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Nakada et al. teaches method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a voltage having a negative polarity to the first discharge electrodes

and a voltage having a positive polarity to the second discharge electrodes (Col. 31, lines 5-8), and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor (Col. 30, Line 65 to Col. 31, Line 5); causing electric discharge in second discharge areas which are different from the first discharge areas at least partially (Col. 2, Lines 33-47, Col. 30, Lines 49-64) and which are between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said second discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a voltage having a positive polarity to the first discharge electrodes and a voltage having a negative polarity to the second discharge electrodes, (Col. 31, Lines 5-12) and converting ultraviolet rays caused by the electric discharge into visible; light through the phosphor (Col. 30, Line 65 to Col. 31, Line 5); and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in. The second discharge areas to be repeated (Col. 30, Lines 49-64).

Claim 22, Cho et al. teaches a method of emitting light from a lamp (back light) (Col. 1, Lines 17-22) in which a discharge gas is sealed (Col. 5, Lines 17-35), and first and second discharge electrodes are formed (Col. 5, Lines 17-35) and different areas alternated in accordance with voltages applied to said plurality of discharge electrodes (Col. 6, Lines 14-34).

Nakada et al. teaches first discharge electrodes, second discharge electrodes, and third discharge electrodes are formed (Col. 1, Line 58 to Col. 2, Line 18) said method comprising: causing electric discharge in first discharge areas between the first and second discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a drive voltage of a positive potential to one of the first and second discharge electrodes and a drive voltage of a

negative potential to the other or the first and second discharge electrodes, (Col. 31, Lines 5-12) and converting ultraviolet rays caused by the electric discharge into visible light through a phosphor (Col. 30, Line 65 to Col. 31, Line 5), causing electric discharge in second discharge areas which ate different from, the first discharge areas at least partially (Col. 2, Lines 33-47, Col. 30, Lines 49-64) and which are between the first and third discharge electrodes (Col. 1, Line 58 to Col. 2, Line 3) in accordance with discharge projection of said first discharge electrodes (Col. 2, lines 33-42, Col. 8, Lines 40-67) by applying a drive voltage of a positive potential to one of the first and third discharge electrodes (Col. 31, Lines 21-36) and a drive voltage of a negative potential to the other of the first and third discharge electrodes (Col. 31, Lines 36-41) and converting ultraviolet rays caused by the electric discharge into visible light via the phosphor (Col. 31, lines 41-48); and controlling said causing electric discharge in the first discharge areas and said causing electric discharge in the second discharge areas to be repeated (Col. 31, Lines 24-30). The combination teaches applicant's invention and they do obviate.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is informed that all of the other additional cited references either anticipate or render the claims obvious. In order to not to be repetitive and exhaustive, the examiner did draft additional rejection based on those references.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M Dharia whose telephone number is 703-605-1231. The examiner can normally be reached on M-F 8AM to 5PM.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-3054938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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February 29, 2004

VIJAY SHANKAR
PRIMARY EXAMINER